45

SEQUENCE LISTING

<110> Sinskey, Anthony J. Lessard, Philip A. Willis, Laura B.											
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ttc cgt gca gca ctc gaa acc ggt gca gcc acg gta gct att tac ccc Phe Arg Ala Ala Leu Glu Thr Gly Ala Ala Thr Val Ala Ile Tyr Pro 30 35 40	327										
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				gca Ala 80												471
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				act Thr												567
				tct Ser												615
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aaa Lys	agc Ser	gct Ala	gaa Glu	ggc Gly 160	cag Gln	act Thr	tac Tyr	ccc Pro	atc Ile 165	ttt Phe	gtg Val	aag Lys	gca Ala	gtt Val 170	gcc Ala	711
				cgc Arg												759
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gaa Glu 220	gtg Val	cag Gln	atc Ile	ctt Leu	ggc Gly 225	gat Asp	cac His	act Thr	gga Gly	gaa Glu 230	gtt Val	gta Val	cac His	ctt Leu	tat Tyr 235	903
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	gaa Glu											1239
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_	acc Thr 365											1335
_	ctt Leu	-										1383
_	tcc Ser	_	_									1431
_	gtt Val	_	_	_	-	-	 _	_				1479
	gca Ala											1527
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		cgc Arg 510									1767
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		tac Tyr		_							2103
-	-	gcc Ala	_								2151
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gat cc Asp Pr 68	o Asn											2295
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cgc cg Arg Ar	_		_	-								2439
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ggt tt Gly Le												2631
gtg co Val Ar	, , ,	_		-								2679
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cgt gc Arg Al 84	a Gln	_		-								2775
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gtc ac												2871

y e

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cct cca ggt ggc tgg cca gag cca ctg cgc acc cgc gca ctg gaa ggc Pro Pro Gly Gly Trp Pro Glu Pro Leu Arg Thr Arg Ala Leu Glu Gly 925 930 935	3015
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cca ctg ctt gtt cgc ctg gat gcg atc tct gag cca gac gat aag ggt Pro Leu Leu Val Arg Leu Asp Ala Ile Ser Glu Pro Asp Asp Lys Gly 1020 1025 1030 1035	3303
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- Glu Ala Ser Arg Glu Ala Glu Ala Ala Phe Gly Asp Gly Ala Val Tyr 195 200 205
- Val Glu Arg Ala Val Ile Asn Pro Gln His Ile Glu Val Gln Ile Leu 210 215 220
- Gly Asp His Thr Gly Glu Val Val His Leu Tyr Glu Arg Asp Cys Ser 225 230 235 240
- Leu Gln Arg Arg His Gln Lys Val Val Glu Ile Ala Pro Ala Gln His 245 250 255
- Leu Asp Pro Glu Leu Arg Asp Arg Ile Cys Ala Asp Ala Val Lys Phe 260 265 270
- Cys Arg Ser Ile Gly Tyr Gln Gly Ala Gly Thr Val Glu Phe Leu Val 275 280 285
- Asp Glu Lys Gly Asn His Val Phe Ile Glu Met Asn Pro Arg Ile Gln 290 295 300
- Val Glu His Thr Val Thr Glu Glu Val Thr Glu Val Asp Leu Val Lys 305 310 315 320
- Ala Gln Met Arg Leu Ala Ala Gly Ala Thr Leu Lys Glu Leu Gly Leu 325 330 335
- Thr Gln Asp Lys Ile Lys Thr His Gly Ala Ala Leu Gln Cys Arg Ile 340 345 350
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- Thr Ala Tyr Arg Ser Pro Gly Gly Ala Gly Val Arg Leu Asp Gly Ala 370 375 380
- Ala Gln Leu Gly Gly Glu Ile Thr Ala His Phe Asp Ser Met Leu Val 385 390 395 400
- Lys Met Thr Cys Arg Gly Ser Asp Phe Glu Thr Ala Val Ala Arg Ala 405 410 415
- Gln Arg Ala Leu Ala Glu Phe Thr Val Ser Gly Val Ala Thr Asn Ile 420 425 430
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- Ile Ala Thr Gly Phe Ile Ala Asp His Pro His Leu Leu Gln Ala Pro 450 455 460
- Pro Ala Asp Asp Glu Gln Gly Arg Ile Leu Asp Tyr Leu Ala Asp Val 465 470 475 480
- Thr Val Asn Lys Pro His Gly Val Arg Pro Lys Asp Val Ala Ala Pro 485 490 495
- Ile Asp Lys Leu Pro Asn Ile Lys Asp Leu Pro Leu Pro Arg Gly Ser 500 505 510
- Arg Asp Arg Leu Lys Gln Leu Gly Pro Ala Ala Phe Ala Arg Asp Leu 515 520 525
- Arg Glu Gln Asp Ala Leu Ala Val Thr Asp Thr Thr Phe Arg Asp Ala 530 535 540
- His Gln Ser Leu Leu Ala Thr Arg Val Arg Ser Phe Ala Leu Lys Pro 545 550 555 560
- Ala Ala Glu Ala Val Ala Lys Leu Thr Pro Glu Leu Leu Ser Val Glu 565 570 575
- Ala Trp Gly Gly Ala Thr Tyr Asp Val Ala Met Arg Phe Leu Phe Glu 580 585 590
- Asp Pro Trp Asp Arg Leu Asp Glu Leu Arg Glu Ala Met Pro Asn Val 595 600 605
- Asn Ile Gln Met Leu Leu Arg Gly Arg Asn Thr Val Gly Tyr Thr Pro 610 615 620
- Tyr Pro Asp Ser Val Cys Arg Ala Phe Val Lys Glu Ala Ala Ser Ser 625 630 635 636
- Gly Val Asp Ile Phe Arg Ile Phe Asp Ala Leu Asn Asp Val Ser Gln 645 650 655
- Met Arg Pro Ala Ile Asp Ala Val Leu Glu Thr Asn Thr Ala Val Ala 660 665 670
- Glu Val Ala Met Ala Tyr Ser Gly Asp Leu Ser Asp Pro Asn Glu Lys 675 680 685
- Leu Tyr Thr Leu Asp Tyr Tyr Leu Lys Met Ala Glu Glu Ile Val Lys 690 695 700
- Ser Gly Ala His Ile Leu Ala Ile Lys Asp Met Ala Gly Leu Leu Arg 705 710 715 720
- Pro Ala Ala Val Thr Lys Leu Val Thr Ala Leu Arg Arg Glu Phe Asp

730

ed girth girth lett girne girth engh endy. Little ed ed plant girth end end ends fand land virth endy and land et them to the destroyed with ends them.

Leu	Pro	Val	His	Val	His	Thr	His	Asp	Thr	Ala	Gly	Gly		Leu	Ala
			740					745					750		
Thr	Tyr	Phe 755	Ala	Ala	Ala	Gln	Ala 760	Gly	Ala	Asp	Ala	Val 765	Asp	Gly	Ala
Ser	Ala 770	Pro	Leu	Ser	Gly	Thr 775	Thr	Ser	Gln	Pro	Ser 780	Leu	Ser	Ala	Ile
Val 785	Ala	Ala	Phe	Ala	His 790	Thr	Arg	Arg	Asp	Thr 795	Gly	Leu	Ser	Leu	Glu 800
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Pro	Ala	Asp	Phe 900	Ala	Ala	Asp	Pro	Gln 905	Lys	Tyr	Asp	Ile	Pro 910	Asp	Ser
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Pro	Glu 930	Pro	Leu	Arg	Thr	Arg 935	Ala	Leu	Glu	Gly	Arg 940	Ser	Glu	Gly	Lys
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Lys	Pro	Thr	Glu 980	Glu	Phe	Leu	Glu	His 985	Arg	Arg	Arg	Phe	Gly 990	Asn	Thr
Ser	Ala	Leu 995	Asp	Asp	Arg		Phe 1000	Phe	Tyr	Gly		Val 1005	Glu	Gly	Arg

Glu Thr Leu Ile Arg Leu Pro Asp Val Arg Thr Pro Leu Leu Val Arg 1015 1020 1010 Leu Asp Ala Ile Ser Glu Pro Asp Asp Lys Gly Met Arg Asn Val Val 1035 1025 1030 Ala Asn Val Asn Gly Gln Ile Arg Pro Met Arg Val Arg Asp Arg Ser 1045 1050 Val Glu Ser Val Thr Ala Thr Ala Glu Lys Ala Asp Ser Ser Asn Lys 1065 1060 Gly His Val Ala Ala Pro Phe Ala Gly Val Val Thr Val Thr Val Ala 1080 1085 1075 Glu Gly Asp Glu Val Lys Ala Gly Asp Ala Val Ala Ile Ile Glu Ala 1090 1095 1100 Met Lys Met Glu Ala Thr Ile Thr Ala Ser Val Asp Gly Lys Ile Asp 1110 1115 Arg Val Val Pro Ala Ala Thr Lys Val Glu Gly Gly Asp Leu Ile 1130 1125 Val Val Val Ser 1140 <210> 3 <211> 23 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Forward DNA Primer <400> 3 23 gtcttcatcg agatgaatcc gcg <210> 4 <211> 23 <212> DNA <213> Artificial Sequence

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